

Declining Chemical Contamination in Puget Sound? Results of the 1999-2003 National Mussel Watch Program

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During 1999-2002, concentrations of organic contaminants (organochlorines and PAH's) continued to decline in mussels from central Puget Sound following peak levels in the mid 1990's. Since 1986 the NOAA National Status and Trends (NS&T) Mussel Watch Program has monitored chemical contaminants in mussels and oysters at over 250 sites along the US coastline, including 14 sites in Washington. Trends observed thorough 1997-98, presented at the 2001 Puget Sound Research Conference, indicated that contamination of mussels from the central part of the Sound were increasing. The most recent data indicate resumption of a decline that was observed in the 1980's, and which likely began in the 1960's following major contamination during World War II. Beyond Puget Sound, in the Straits of Juan d Fuca and along the Pacific coast, concentrations of organic chemicals and trace metals in mussels remain relatively low and unchanging, exhibiting patterns previously described. These patterns include higher concentrations of some metals at the more remote sites compared to Puget Sound. Analysis of PAH "fingerprints" suggest that the sources of PAH's dominated by combustion products, not oil spills. Continuation of this program, perhaps with increased sampling frequency, addition of sites in the Straits of Georgia, and re-sampling of dated sediment cores, can provide a valuable tool in tracking longterm progress in reducing pollutant levels in marine waters of the "Salish Sea".